

## **Electrodialysis Method and Apparatus For Trace Metal Analysis**

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### ABSTRACT OF THE DISCLOSURE

10 An electrodialysis method and apparatus are provided  
for treating a sample including trace metals in a matrix.  
Advantageously, the present invention allows for highly  
accurate detection of trace contaminants in a solution  
sample, in particular trace metals, substantially in real-  
time and on-line. The present invention includes flowing a  
15 carrier solution through a carrier solution channel  
separated from a sample channel by a membrane. A component  
of the carrier solution is diffused through the membrane  
into the sample channel to stabilize trace metals in the  
solution sample for subsequent analysis. Simultaneously,  
20 the matrix is eliminated, neutralized, and/or modified for  
enhanced analysis.